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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,539	03/31/2004	David M. Callaghan	03AB111/ALBRP333US	7412
7590 Susan M. Donahue Rockwell Automation 704-P, IP Department 1201 South 2nd Street Milwaukee, WI 53204				
01/28/2009				
EXAMINER				
KANE, CORDELLA P				
ART UNIT		PAPER NUMBER		
2432				
MAIL DATE		DELIVERY MODE		
01/28/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/814,539

**Applicant(s)**

CALLAGHAN, DAVID M.

**Examiner**

CORDELIA KANE

**Art Unit**

2432

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 and 30-41 is/are pending in the application.
- 4a) Of the above claim(s) 12-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 30-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 26, 2008 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1 – 11, and 30 – 41 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 – 8, 11, 30, 31, 34 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuyama et al's US Publication 2002/0026581 A1.

1. Referring to claim 1, Matsuyama teaches:

- a. A certification component that provides a local trusted authority to verify identity of the users on the system (page 7, paragraph 158).
  - b. An access component that establishes rules of use associated with automation device services based at least upon the identity of the users on the system verified by the certification component (page 18, paragraph 338).
  - c. The rules of use include at least one of right to view, modify, download or upload a subset of an automation device program (page 18, paragraph 338).
2. Referring to claim 2, Matsuyama teaches that the system is executed remote from the automation device (Figure 2).
3. Referring to claim 3, Matsuyama teaches that the communication occurs over a LAN (page 32, paragraph 526).
4. Referring to claim 4, Matsuyama teaches that the communications are secured using digital certificates which bind public keys to specific entities to facilitate decryption of messages as well as authentication of the sender (page 7, paragraph 159).
5. Referring to claim 5, Matsuyama teaches that the message is digitally signed to enable the message to be authenticated (page 8, paragraph 169).
6. Referring to claim 6, Matsuyama teaches that access to the access component is restricted to a particular user or group of users via certificates (page 7, paragraph 159).
7. Referring to claim 7, Matsuyama teaches that the devices includes an access credential component which defines and restricts access to particular objects and services based on the identity of the user as established by the certificate (page 7, paragraph 159).

8. Referring to claim 8, Matsuyama teaches a virtual key component adapted to retrieve identifying information from a certificate (page 8, paragraph 163).
9. Referring to claim 11, Matsuyama teaches that the automation device includes an I/O device (page 2, paragraph 20).
10. Referring to claim 30, Matsuyama teaches:
  - d. Encrypting a message to be sent to a automation device utilizing a key derived from a certification component (page 8, paragraph 163).
  - e. Verifying an identity of the automation device (page 7, paragraph 159).
  - f. Establishing one or more rules of use for the message based at least upon the identity of the automation device (page 18, paragraph 338).
  - g. Transmitting the encrypted message to the automation device (page 8, paragraph 163).
11. Referring to claims 31 and 36, Matsuyama teaches:
  - h. Receiving an encrypted message from an automation device or device controller (page 16, paragraph 309).
  - i. Locating a certificate component associated with the automation device sending the message (page 16, paragraph 309).
  - j. Decrypting the message utilizing the public key provided by the certificate component (page 16, paragraph 309).
12. Referring to claim 34, Matsuyama teaches searching the local device store (page 16, paragraph 309).

***Claim Rejections - 35 USC § 103***

13. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuyama as applied above, and further in view of Asunmaa.

14. Matsuyama discloses all the limitations of the parent claims, using a key component to retrieve identifying information (page 8, paragraph 163). Matsuyama does not explicitly disclose the card being a SIM card. However, Asunmaa discloses using a SIM card to authenticate a user (page 4, paragraph 59). Matsuyama and Asunmaa are analogous art because they are from the same field of endeavor, authentication. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Matsuyama and Asunmaa before him or her, to modify the system of Matsuyama to include the SIM card of Asunmaa. The suggestion/motivation for doing so would have been to have reliable authentication of a data terminal (page 4, paragraph 59).

15. Claims 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuyama as applied above, and further in view of Forth.

16. Referring to claim 32, Matsuyama discloses all the limitations of the parent claims. Matsuyama does not explicitly disclose that the automation device is an industrial PLC. However, Forth discloses using an industrial PLC to store instructions to perform I/O control (page 2, paragraph 25). Matsuyama and Forth are analogous art because they are from the field of Endeavor, input/output. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of

Matsuyama and Forth before him or her, to modify the input/output system of Matsuyama to include the industrial PLC of Forth. The suggestion/motivation for doing so would have been to provide increased versatility and additional functionality (page 2, paragraph 22).

17. Referring to claim 33, Matsuyama discloses that the message is a program (page 1, paragraph 5).

18. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuyama as applied above, and further in view of Meffert.

19. Matsuyama does not explicitly disclose downloading the certificate. However, Meffert discloses downloading the certificate and private keys (page 11, paragraph 109). Matsuyama and Meffert are analogous art because they are from the same field of endeavor, digital rights management. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Matsuyama and Meffert before him or her, to modify receiving the certificate of Matsuyama to include downloading the certificate of Meffert. The suggestion/motivation for doing so would have been to be able to identify the rights set and match the certificate to the private key (page 11, paragraph 109).

20. Claims 37 – 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuyama in view of Stefik, and further in view of Forth. Referring to claims 37 and 41, Matsuyama discloses:

- k. Generating a message component is generated by a first automation device (page 8, paragraph 163).
  - l. Verifying an identity of the automation device (page 7, paragraph 159).
  - m. Establishing one or more rules of use for the message based at least upon the identity of the automation device (page 18, paragraph 338).
  - n. Transmitting the message component to a second industrial automation device (page 8, paragraph 165).
21. Matsuyama does not explicitly disclose the message component comprising a message digest, a certificate, and a hash function. However, Stefik discloses authenticating the message by retrieving a hash function in accordance with the hash information (column 42, lines 11-15), generating a message digest by applying the retrieved hash function to the received message and comparing the generated message digest with the message digest retrieved from the message component (column 42, lines 17-20). Matsuyama and Stefik are analogous art because they are from the same field of endeavor, content distribution. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Matsuyama and Stefik before him or her, to modify the system of Matsuyama to include the hash and digest of Stefik. The suggestion/motivation for doing so would have been to prevent tampering (column 42, lines 17-20).
22. Matsuyama in view of Stefik does not explicitly disclose that the automation device is industrial. However, Forth discloses using an industrial PLC to store instructions to perform I/O control (page 2, paragraph 25). Matsuyama in view of Stefik

and Forth are analogous art because they are from the field of Endeavor, input/output. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Matsuyama in view of Stefik and Forth before him or her, to modify the system of Matsuyama in view of Stefik to include the industrial PLC of Forth. The suggestion/motivation for doing so would have been to provide increased versatility and additional functionality (page 2, paragraph 22).

23. Referring to claims 38 and 39, Matsuyama discloses encrypting the message prior to transmission (page 8, paragraph 163).

24. Referring to claim 40, Stefik discloses authenticating the message by retrieving a hash function in accordance with the hash information (column 42, lines 11-15), generating a message digest by applying the retrieved hash function to the received message and comparing the generated message digest with the message digest retrieved from the message component (column 42, lines 17-20).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CORDELIA KANE whose telephone number is (571)272-7771. The examiner can normally be reached on Monday - Thursday 8:00 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. K./  
Examiner, Art Unit 2432

/Benjamin E Lanier/  
Primary Examiner, Art Unit 2432